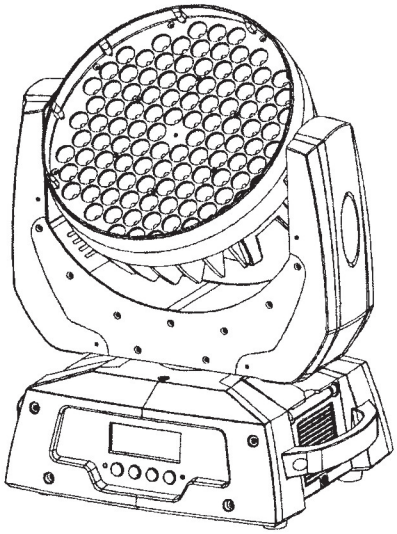
USER MANUAL

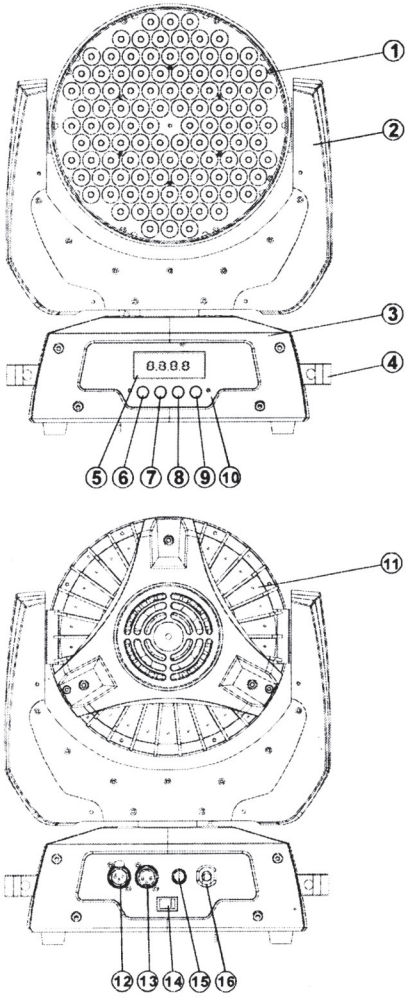


KEEP THIS MANUAL FOR FUTURE NEEDS

Features:

108 x 3W high power LEDs
Extremely Long Life:50,000 Hr and low power consumption
DMX channel:13 channels
Pan/tilt movement: 8 bit and 16 bit resolution
For smooth and precise resolution
Pan: 540°/630° optional, Tilt: 265°movement
High speed of pan/tilt movement, speed of pan/tilt movement is adjustable
Scan position memory, auto reposition after unexpected movement
Strobe effect with 18 flashes per second and pulse effect
General dimming and blackout for all four colors
Excellent color mixing and rainbow effect
Friendly blue LCD display
Preset program: 7 built in programs can be called up via DMX controller
RDMX: remote DMX addressing, lamp on / off, Sound control switch by controller

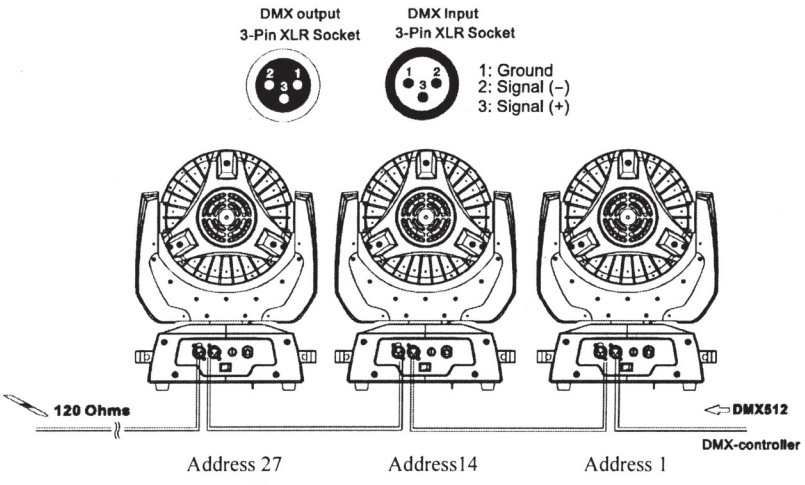
OVERVIEW



(1) Lens
(2) Yoke
(3) Base
(4) Carrying handle
(5) LCD-Display
(6) Mode/esc-button
(7) Up-button
(8) Down-button
(9) Enter-button
(10) Control Board
(11) Housing
(12) 3-PIN DMX output socket
(13) 3-PIN DMX input socket
(14) Power switch
(15) Fuse
(16) Power supply

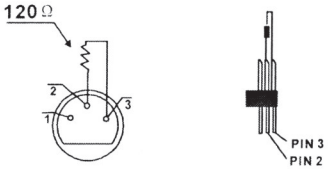
DMX-512 control connection

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple
Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



Projector DMX starting address selection

All fixtures should be given a DMX starting address when using a DMX signal,so that the correct fixtrre responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to "listen" to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.
If you set the same address, all the units will start to"listen"to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.
If you set a different address, each unit will start to"listen" to the channel number you have set,

based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.
In the case of the moving head, which is 13 channels fixture when you select the standard channel mode, you should set the starting address of the first unit to 1, the second unit to 14(13+1), the third unit to 27 (13+14), and so on.

Control Board

The Control Board offers several features: you can simply set the starting address, switch on and off the lamp, run the pre-programmed program or make a reset.

The main menu is accessed by pressing the **Mode/esc-**button until the display starts flashing. Browse through the menu by pressing the **Up-**button or **Down-**button. Press the **Enter-**button in order to select the desired menu. You can change the selection by pressing the Up-button or Down-button. Confirm every selection by pressing the **Enter-**button. You can leave every mode by pressing the **Mode/esc-**button. The functions provided are described in the following sections.

To access display Menu via the internal battery, press the UP & DOWN buttons simultaneously. Display will automatically switch off after about 10 seconds from last button press.

Default settings shaded

Function Mode	Set Dmx Address Value Display Set To Slave Auto Program Music Control	A001~AXXX PAN..... Slave1,Slave2,Slave3 Master / Alone Master / Alone		DMX address setting DMX value display Slave setting Auto program Music control
Information	Time Information	Current Time Total Life Hours Last Run Hours Timer Password Clear Last Run	XXXX(Hours) XXXX(Hours) XXXX(Hours) Password=XXX ON/OFF	Power on running time Fixture running time Fixture Last times clear Timer Password Clear Fixture Last time
	Temperature Info	Head Temperature	XXX℃/℉	Temperature in the head
	Software Version	Ver1.0		Software version of each 1C
Personality	Status Settings	Address via DMX No DMX Status Pan Reverse Tilt Reverse Fine Resolution Pan Degree Feedback Movement Speed Mic Sensitivity	ON/OFF Close/Hold/Auto/Music ON/OFF ON/OFF ON/OFF 630/540 ON/OFF Speed 1~4 0~99%	Add. via DMX Auto run if no DMX Pan Reverse movement Tilt Reverse movement Fine resolution switch Pan Degree Select Movement Feedback switch Movement Mode Select Sensitivity of Mic.
	Service Setting	Service Password Fan Voltage	Password=XXX High/Low	Service Code “=050” Fan Voltage Select
	Fans Control	Auto Fans Speed High Fans Speed Low Fans Speed		Fans Speed Mode Select

	Display Setting	Shutoff Time			Display shutoff time
	Temperature C/F	Celsius Fahrenheit			Temperature switch between ℃/℉
	Initial Effect	PAN.....	PAN =XXX		Initial effect position
	Reset Default	ON/OFF			Restore factory sett.
Reset Function	Reset All Reset Pan&Tilt				Reset all motors Reset Pan/Tilt
Effect Adjust	Test Channel	PAN.....			Test function
	Manual Control	PAN :	PAN =XXX :		Fine adjustment of the lamp
	Calibrate Values	--Password-- PAN :	Password =XXX PAN=XXX :		Calbrate and adjust the effects to standard/right position Password "050"
Users Mode Set	User Mode	XXXXXX(Band) User Mode A User Mode B User Mode C			User 's mode to change channel Numbers
	Edit User Mode	PAN :	PAN = CH01 :		Preset User modes
Edit Program	Select Programs	Auto Pro Part 1 Auto Pro Part 2 Auto Pro Part 3	Program 1 ~ 10 Program 1 Program 1 ~ 10 Program 2 Program 1 ~ 10 Program 3		Select programs to be run
	Edit Program	Program 1 : Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	("STEP XX")	Testing program Program in loop Save and exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,..... --Secne Time-- Input By Outside	Pan=xxx... ... TIME=xx.x s	Save and automatically return manual scenes edit
	Rec. Controller	XX~XX			Automat. scenes rec

Function Mode

DMX address setting

With this function, you can adjust the desired DMX-address via the Control Board.

Select **Set DMX address** via the encoder.

Press the encoder, adjust the DMX address by turning the encoder.

Press the encoder to confirm.

Press the Mode/Esc-button in order return to the main menu.

Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value changing.

Slave setting

With this function, you can define the device as slave.

Auto Program

With this function, you can run the internal program. You can select the desired program under "**Select program**". You can set the number of steps under "**Edit program**". You can edit the individual scenes under "**Edit scenes**". With this function, you can run the individual scenes either automatically, i.e. with the adjusted Step-Time.

Music control

With this function, you can run the internal program.sound-controlled.

Information

Time information

Current Time

With this function, you can display the temporary running time of the device from the last power on. The display shows "XXXX ", "XXXX "stands for the number of hours. The counter is resetted after turning the device off.

Total life Hours

With this function, you can display the running time of the device. The display shows "XXXX ", "XXXX "stands for the number of hours.

Last Run Hours

With this function, you can display last the running time of the lamp. The display shows "XXXX ", "XXXX "stands for the number of hours.

Time Password

With this function, you can display the timer password. The time password.is 038.

Clear Last Run

With this function, you can clear last run time of the fixture. The display shows "ON "or "OFF ", Press "Enter "to confirm.

Temp. Info.

Head Temp

With this function you can display the temperature on the display board of the base (near CMY-filter)in Celsius.

Software version

With this function you can display the software version of the device.

- Select "**Software version**" by turning the encoder.
- Press the encoder, the display shows "V-X.X ", " X.X" stands for the version number, e.g. " V-1.0", " V-2.6".
- Turn the encoder in order to read the version of every individual IC.
- Press the Mode/Ese-button in order to return to the main menu.

PERSONALITY

Status Settings

Address via DMX

With this function, you can adjust the desired DMX-address via an external controller.

- Select **"Address via DMX"** by turning the encoder.
- Press the encoder, the display shows "ON" or "OFF".
- Turn the encoder to select "ON" if you wish to enable this function or "OFF" if you don't.
- Press the encoder to confirm.
- Press the Mode/Esc-button in order to return to the main menu.
- On the controller, set the DMX-value of channel 1 to "7".
- Set the DMX-value of channel 2 to "7" or "8". When set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.
- Set the DMX-value of channel 3 to the desired starting address. If you want to set the starting address to 57, set channel 1 to "7", channel 2 to "7" and channel 3 to "57". If you want to set the starting address to 420,set channel 1 to "7", channel 2 to "8" and channel 3 to "164" (256+164=420).
- Wait for approx. 20 seconds and the unit will carry out a reset. After that, the new starting address is set.

No DMX Status

With this function, when the drive is not DMX signal, it runs automatism, close, hold and music, the default is hold.

Pan Reverse

With this function you can reverse the Pan-movement.

Tilt Reverse

With this function you can reverse the Tilt-movement.

Fine resolution

With this function, you can fine resolution switch of pan movement or tilt movement.

Pan Degree

With this function, you can select pan degree for 630 or 540.

Feedback

With this function, you can feedback switch of pan movement or tilt movement.

Movement Speed

With this function, you can select scan mode from 1 to 4.

Mic Sensitivity

With this function, the default is 70%, you can select the desired microphone sensitivity from 0 % to 99 %.

Service setting

Service Password

With this function, you can set the service password.

Fan Voltage

With this function, you can select fan voltage for high or low, the default is low

Attention: The model is not recommended when ambient temperature is higher than 15 Celsius degree.

Fans Control

With this function, you can set the speed of the running fans. The selections have Auto、high and low.

Display Setting

Shut off time

With this function,you can shut off the LCD display after 2 to 59 minutes. Turn the encoder in order to select the desired shut off time.

Temperature C/F

With this function, Display the temperature for Celsius or Fahrenheit.

Initial effect

With this function, Display initial effect position.

Reset Default

With this function, you can select restore factory set for ON or OFF, the default is OFF.

Reset-functions

With this function,you can reset the device via the Control Board. You can select the different reset functions by turning the encoder.

Effect Adjust

Test function of each channel

With this function you can test each channel on its (correct) function.

Lamp adjustment

With this function, you can adjust the lamp more easily. All effects will be canceled, the shutter opens and the dimmer intensity will be set to 100 %. With the individual functions, you can focus the light on a flat surface (wall) and erform the fine lamp adjustment.

Calibrate values

With this function, you can calibrate and adjust the effect wheels to their correct positions. The password of calibrate values is 050.

Users Mode Set

In this menu, user can select different channels list by different sequence:

For example, after the user enter this manual, if select Auto Program = CH 22, means in this User s mode, the "Dimmer" is in Channel 16.

User mode

With this function, you can create user defined channel orders.

Preset User mode

With this function, you can adiust the rest user defined channel order.

Edit program

Select program

With this function, you can select the program for the Program Run.

Edit program

With this function, you can edit the internal programs.

Edit scenes

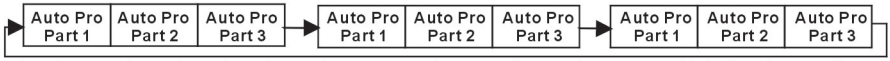
With this function, you can edit the scenes of the internal programs.

Auto scenes rec.

The moving head features an integrated DMX-recorder by which you can transmit the programmed scenes from your DMX-controller to the moving head. Adjust the desired scene numbers via the encoder (from – to). When you call up the scenes at your controller, they will automatically be transmitted tothe moving head.

Excursion:

A Master unit can send up to 3 different data groups to the Slave units, i.e.a Master unit can start 3 different Slave units, which run 3 diffcrent programs. The Master unit sends the 3program parts in a continuous loop.


Auto Pro Part 1
Auto Pro Part 2
Auto Pro Part 3
Auto Pro Part 1
Auto Pro Part 2
Auto Pro Part 3
Auto Pro Part 1
Auto Pro Part 2
Auto Pro Part 3

The Slave unit receives data from the Master unit according to the group which the Slave unit was assigned to. If e.g. a Slave unit is set to "Slave 1" in the menu "Set to Slave", the Master unit sends "Auto Program Part 1" to the Slave unit. If set to" Slave 2", the Slave unit receives "Auto Program Part 2".

To start a Auto Program please proceed as follows:

1. Slave-Setting

- Select "Function Mode"by turning the encoder.
- Press the Enter button to confirm.
- Select "Set to slave" by turning the encoder.
- Press the Enter button to confirm.
- Turn the encoder to select "Slave 1", "Slave 2"or "Slave 3".
- Press the Enter button to confirm.
- Press the Mode/Esc button in order to return to the main menu.

2. Automatic Program Run

- Select "Function Mode" by turning the encoder.
- Press the Enter button to confirm.
- Select "Auto Program" by turning the encoder.
- Press the Enter button to confirm.

• Turn the encoder to select Master or Alone . The selection"Alone" means Stand Alone-mode and "Master" that the device is defined as master.
• Press the Enter button to confirm.
• Press the Mode/Esc button in order to return to the main menu.

3. Program selection for Auto Pro Part "Edit program"
• Select"Edit program" by turning the encoder.
• Press the Enter button to confirm.
• Select "Select programs" by turning the encoder.
• Press the Enter button to confirm.
• Turn theencoder to select "Auto Pro Part 1", "Auto Pro Part 2" or "Auto Pro Part3 ", and thus select which Slave program is to be sent. Selection" Part 1" means, that the Slave unit runs the same program as the master units.
• Press the Enter button to confirm.
• Press the Mode/Esc button in order to return to the main menu.

4. Program selection for Edit Program
• Select"Edit program" by turning the encoder.
• Press the Enter button to confirm.
• Select "Edit program" by turning the encoder.
• Press the Enter button to confirm.
• Turn theencoder to select the desired program. With this function you can edit specific scenes into a specific program.
• Press the Enter button to confirm.
• Press the Mode/Esc button in order to return to the main menu.

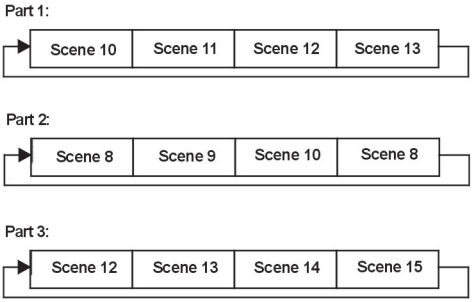
5. Automatic Scene Recording
• Select"Edit program" by turning the encoder.
• Press the Enter button to confirm.
• Select "Edit scenes "by turning the encoder.
• Turn the encoder to select the desired scene numbers. You can program a maximum number of 250 .
• Turn the encoder to select the desired scene numbers. You can program a maximum number of 250 scenes .
• Press the Enter button to confirm.
• Press the Mode/Esc button in order to return to the main menu.

Example:
Program 2includes scenes:10, 11 ,12, 13,
Program 4includes scenes:8, 9, 10
Program 6includes scenes:12, 13,14, 15, 16

Auto Pro Part 1 is Program 2;
Auto Pro Part 2 is Program 3;

Auto Pro Part 3 is Program 6

The 3 Slave groups run the Auto Program in certain time segments,as shown in the following picture:



INSTRUCTIONS ON USE:

DMX channel's functions and their values(13 DMX channels):	
Channel 1 - Red :	
0-255	Red (0-Black , 255-100% Red)
Channel 2 - Green:	
0-255	Green (0-Black , 255-100% Green)
Channel 3 - Blue:	
0-255	Blue (0-Black , 255- 100% Blue)
Channel 4 - White:	
0-255	White (0-Black , 255- 100% White)
Channel 5 - PAN movement 8bit :	
Channel 6 - TILT movement 8bit :	
Channel 7 - Speed pan/tilt movement:	
0-225	max to min speed
226-235	blackout by movement
236-255	No function
Channel 8 - Shutter, strobe:	

0-31	Led trun off
32-63	Led trun on
64-95	Srtobe effect show to fast
96-127	Led turn on
128-159	Pulse-effect in sequences
160-191	Led turn on
192-223	Random strobe effect slow to fast
224-255	Led turn on
Channel 9 - Dimmer(intensity):	
0-255	Intensity 0 to 100%
Channel 10 - Rainbow:	
0-7	No function
8-231	Rainbow colours
232-255	Crossfading colours from slow to fast
Channel 11 - reset,internal programs:	
0-79	Normal
80-84	All motor reset
85-87	Scan motor reset
88-99	No function
100-119	Internal program 1 (secnel ~8 of EEPROM)
120-139	Internal program 2 (secne9~16 of EEPROM)
140-159	Internal program 3 (secne17~24 of EEPROM)
160-179	Internal program 4 (secne25~32 of EEPROM)
180-199	Internal program 5 (secne33~40 of EEPROM)
200-219	Internal program 6 (secne41~48 of EEPROM)
220-239	Internal program 7 (secne49~56 of EEPROM)
240-255	Music Control (secne of Program 1)
Channel 12 - Pan fine:	
Channel 13 - Tilt fine:	

ERROR MESSAGE

When you turn on the fixture, it will make a reset first. The display may show "XXer" while there are problems with one or more channels."XX" stands for channel1, 2, 3,etc who has the testing sensor for positioning.
For example,when the display shows"Red Er", it means there is some error in channel 1,If there are some errors on channel 1, channel 2, channel 5 at the same time, you may see the error message"Red Color Er", "Green Er ", "Pan Er" flash repeated for 5 times, and then the fixture will generate a reset signal, all the stepper reset. If the fixture remain error message after performing reset more than 3 times, it will detect whether the fixture has more

than 3 errors. If the fixture has more than 3 errors (including 3 errors), all the channels can not work properly; but if the fix ture has less than 3 errors, only the channels which have errors can not work properly, others can work as usual.

PAN-movement Er
(PAN-yoke movement error) This message will appear after the reser of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The PAN-movement is not locatcd in the default position after the reset.

TILT-movement Er
(TILT-head movement error) This message will appear after the reser of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The TILT- movement is not locatcd in the default position after the reset.

TECHNICAL SPECIFICATIONS

Power supply: 100V~240V AC,50Hz / 60Hz
Power consumption: max. 350W
Packing dimensions: 48x34.5x44cm
Net weight: 9KGS
Gross weight: 11.5KGS

Remark: errors and omissions for every information given in this manual excepted. All information is subject to change without prior notice.